IDEM Guidance
Indiana Department of Environmental Management
Office of Land Quality
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Enclosure E5 **(**Formerly referred to as Attachment E5**)**

A. LEACHATE DISPOSAL STANDARDS

1. A written permission or approval shall be obtained from a treatment plant indicating that they will accept leachate from a particular landfill.

2. In the event that a facility chooses to treat/or pre-treat leachate prior to disposal, treatment and pre-treatment shall be considered as a part of the facility.

3. In the event that a facility chooses to treat or pretreat leachate and discharge it to federal or State water, the Permittee must comply with all applicable local, State and federal laws.

4. On-site leachate treatment or pretreatment shall be designed according to acceptable common practice standards and comply with all applicable local, State and federal laws.

B. LEACHATE STORAGE AREA

1. For leachate generated within a landfill and collected via a sump area, etc., a device or submersible sump pump shall be provided to monitor the leachate level in the sump area to maintain a one-foot leachate level above the base of the landfill.

2. Any leachate conveyance and storage structures located outside of the solid waste boundary shall be as environmentally sound as the sanitary landfill. At a minimum, the following information must be included:

   a. Leachate conveyance lines outside the solid waste boundary should be double-cased.

   b. For an above-ground leachate storage tank, a spill containment system must be provided.

   c. For underground leachate storage tank, a leak monitoring detection system must be installed.

   d. At a minimum, leachate storage tanks shall have seven (7) to ten (10) days storage capacity for accumulated leachate under conditions when the landfill is open using Version 3.05 or the most updated Hydrologic Evaluation of Landfill Performance (HELP) model.
   e. Leachate storage tanks (steel, fiberglass, concrete, etc.) shall be compatible with the leachate expected to be generated and resistant to temperature extremes. Leachate storage tanks must be checked for leaks prior to its usage.

f. Multiple storage tanks shall be provided as necessary while routine maintenance and repairs are being conducted.

g. All the leachate storage ponds/basins shall meet the following standards:

1) Minimum freeboard of three (3) feet must be provided to prevent any overtopping of the dike by leachate overfilling, or secondary containment equal to the capacity of the pond, plus 24-hour, 25-year storm event must be provided.

2) The leachate storage pond bottom and the side slopes must be constructed of three (3) feet of recompacted material/soil to achieve an equivalent hydraulic conductivity of not more than $1x10^{-7}$ cm/sec covered by 60 mil HDPE or equivalent synthetic liner.

3) A leak detection system must be designed and constructed underneath the synthetic liner.

4) Construction of a leachate storage pond must be followed per QC/QA for the site.

5) The pond area shall be enclosed with adequate fencing or safety guard.

6) An all-weather access road shall be provided to allow year-round maintenance and repairs.

7) Adequate storage for at least seven (7) to ten (10) days worth of accumulated leachate shall be provided under conditions when the landfill is open, using the Version 3.05 or the most updated Hydrologic Evaluation of Landfill Performance (HELP) model.

8) A warning sign must be posted along the fence around the pond.

9) Multiple leachate storage ponds shall be provided as necessary while routine maintenance and repairs are being conducted.

10) A contingency plan for the storage and disposal of leachate shall be developed by the Permittee to include immediate and long-term steps, in the event that leachate cannot be managed as initially planned.

C. LEACHATE MONITORING

1. Once a year, or as approved by the Commissioner, representative samples of leachate shall be collected from each cell or unit.

2. Prior to treatment or pretreatment of leachate, the following parameters must be tested:

   a. Five-day biochemical oxygen demand (BOD_5);

   b. Chemical oxygen demand (COD);

   c. Total suspended solids;

   d. Total iron;

   e. pH; and

   f. Any other parameters which may be required by the treatment plan prior to disposal or by a NPDES permit, if applicable.

3. The collected leachate shall be properly disposed of for a period of thirty (30) years after closure and thereafter. This may increase if the Commissioner determines that a longer period is necessary to protect human health and the environment.

4. Leachate will be considered contaminated if its constituents exceed the applicable wastewater effluent discharge, or standards as may be required by an NPDES permit.

5. If, at any time, leachate is tested and found to be hazardous according to the toxicity characteristic leaching procedure (TCLP) test, the leachate shall be managed in accordance with applicable hazardous waste rules. A copy of the leachate analyses shall be submitted to the Office of Land Quality, Solid Waste Permit Section, Engineering Section.

This document may be modified periodically to reflect changes in methodology. If you have any questions regarding this Guidance, please contact the Solid Waste Engineering staff of this office for assistance.